**Slimy sculpin  *Cottus cognatus***

**Habitat:**
- **feeding:** cool lakes, impoundments, rivers, and streams
- gravel or rock substrate
- **spawning:** nest in shallow areas of lakes
- gravel substrate or rock ledge
- male parental care
Spoonhead sculpin  *Cottus ricei* – special concern

Habitat:

- feeding - moderately deep water in Great Lakes;
- larger rivers and swift streams also in turbid water
Rock bass *Ambloplites rupestris*

Habitat:

- feeding - clear, cool streams, rivers, and lakes
- rocky to sand substrate
- woody or vegetative cover
- spawning - sand or gravel nests
- shallow water
- winter refuge - deep water
**Green sunfish** *Lepomis cyanellus*

**Habitat:**

- **feeding** - impoundments and lakes, and low-current streams and rivers
- no substrate preference
- **spawning** - nests in shallow areas sheltered by rocks, logs, or aquatic vegetation
**Pumpkinseed** *Lepomis gibbosus*

**Habitat:**

- **feeding** - non-flowing clear water in streams and rivers; also lakes and impoundments
  - muck or sand partly covered with organic debris substrate
  - dense beds of submerged aquatic vegetation
- **spawning** - nest in sand, gravel, or rock substrate
  - in shallow water near submerged vegetation
**Bluegill** *Lepomis macrochirus*

**Habitat:**

- **feeding** - non-flowing clear streams and rivers; also lakes and impoundments
  - sand, gravel, or muck containing organic debris substrate
  - scattered beds of aquatic vegetation
  - cannot tolerate low oxygen or continuous high turbidity and siltation
- **spawning** - nests in firm substrate of gravel, sand, or mud
- **winter refuge** - deep water
Northern longear sunfish *Lepomis peltastes*

Habitat:

- **feeding** - clear moderate-sized shallow streams with moderate vegetation
  - rocky substrates
  - little to no current
- **spawning** - nests in gravel, sand, or hard rock substrate
Smallmouth bass *Micropterus dolomieu*

**Habitat:**

- **feeding** - clear, cool, deep lakes and rivers
  - streams where 40% consists of riffles over clean gravel, boulder, or bedrock substrate
  - in pools with a current and >4 feet of depth
  - gradients between 4 and 25 feet per mile
- **spawning** - nest in sandy, gravel, or rocky substrate
  - gradients 7 to 25 feet per mile
  - streams 20 to 100 feet wide
- **winter refuge** - larger deeper waters
  - with gradients between 3 to 7 feet per mile
**Largemouth bass** *Micropterus salmoides*

**Habitat:**

- **feeding** - non-flowing clear waters - lakes, impoundments, and pools of streams
- abundant aquatic vegetation
- soft muck, organic debris, gravel, sand, and hard non-flocculent clay substrates

- **spawning** - nest in gravelly sand to marl and soft mud substrates
- emergent vegetation
- quiet shallow bays; no current
**Black crappie** *Pomoxis nigromaculatus*

**Habitat:**

**feeding**
- larger clear non-silty low-gradient rivers; also in lakes and impoundments
- clean hard sand or muck substrate
- associated with submerged aquatic vegetation
- does not tolerate silt or turbidity well

**spawning**
- nests in gravel, sand, or mud substrate
- some vegetation must be present
- sometimes nests under banks
**Iowa darter** *Etheostoma exile*

**Habitat:**

- **Feeding:**
  - clear, slow moving streams and lakes
  - sandy to muddy substrates
  - intolerant of turbid water
  - lives in rooted aquatic vegetation

- **Spawning:**
  - in pond-like extensions of streams on organic matter or roots
  - in shallows
**Johnny darter** *Etheostoma nigrum*

**Habitat:**
- **feeding** - sand and silt substrate
  - little to moderate current
  - shallow areas of streams, rivers, lakes, and impoundments
  - tolerant of many organic and inorganic pollutants and turbidity
- **spawning** - underneath rocks
  - in stream pools or protected shallows of lakes
**Ruffe** *Gymnocephalus cernuus*

**Habitat:**
- **feeding** - shallow waters at night
  - soft bottoms and no vegetation
- **spawning** - warm shallows of turbid lakes with soft bottoms
  - little or no vegetation present
  - slow-moving water
- **winter refuge** - deeper water
Yellow perch *Perca flavescens*

Habitat:

- **feeding** - clear lakes and impoundments; also Lake Superior
  - low gradient rivers
  - abundance of rooted aquatics
  - muck, organic debris, sand, or gravel substrate
  - does not tolerate turbidity and siltation
- **spawning** - shallows of lakes, tributaries of streams
  - occurs over rooted vegetation, submerged brush, fallen trees
  - may occur over sand or gravel
Northern logperch *Percina caprodes semifasciata*

**Habitat:**

- feeding - gravel riffles, deeper slower sections of rivers
- medium size streams; also lakes, impoundments, and Lake Superior
- sand, gravel, or rock substrate
- avoids turbidity and silt
- spawning - riffles or sandy in-shore shallows
Walleye *Sander vitreus*

Habitat:

- **feeding**: larger, deeper streams and in large, shallow, turbid lakes and impoundments; also Lake Superior
  - gravel, bedrock, and firm substrates preferred
  - does not tolerate a lot of turbidity or low oxygen
- **spawning**: rocky substrates in high gradient water in rivers
  - boulder to coarse gravel shoals in lakes
- **winter refuge**: avoids strong currents